SISTEMI E MICROSISTEMI

CBAT
12V-24V Double battery charger

USER MANUAL

00	17-02-2003	
REV.	DATE	T.M. Check and Approval

CBAT is a double battery charger with two independent sections , each one can charge one or two batteries 12 or 24V . Therefore all the combinations 12V, 24V , 12V+12V , 12V+24V , 24V+24V are possible .

SAFETY

Installation has to be done only by qualified staff.
Be careful to avoid any possible contact with the board when it is powered.
Be careful to make the connections only when the power wires are not connected to the mains supply.
Some components , when the board is connected to the mains supply , have the voltage potential of the mains. This voltage is highly dangerous and can cause death or serious damages.

INSTALLATION AND CABLING

INSTALLATION
It has to be executed inside electrical panels with IP20 or higher protection level.
Working temperature between 0 and +50 °C.
Humidity between 5 and 90% without condense.
Max. altitude 1000m.
Main power: 230V 50Hz +8/-15%.
CABLING
M1 - Output terminal. For wires up to 1,5mmq . Jumpers J1,J2,J3,J4 have to be settled to select the charging voltage for each section (see drawings).
M2 - Power terminal. For wires up to 1,5mmq . The power voltage 230V 50Hz has to be connected here.

OPERATION DESCRIPTION

Batteries are charged at constant voltage with current limit. The charging time depends on the battery capacity and on the battery charge status.
Board has been designed to charge up to four 12V batteries simultaneously. Two independent charge circuits are present. The first is monitored by DL1 and DL2 leds, the second by DL3 and DL4 leds. One or two 12V batteries can be connected to each section. Please refer to the drawings to correctly set the J1,J2,J3 and J4 jumpers.
Once the board is powered, DL1 and DL4 will light on to indicate the presence of the output voltage on terminal M1. Green leds remain always on, except in case of short circuit on the connections of the output terminal.
Red leds lights on only in case of polarity inversion of the battery connection: in this case the green led lights off for a while, and then it lights on again.
Both red led lighted on and green led lighted off, correspond to a wrong operation condition. The board can be irremediably damaged if operates for a long time in a wrong condition.
Batteries have to stay always under charge, because the battery charger itself reduces the current once the charge has been completed.
It is recommended to switch off both power and output connections, when energy is requested from the batteries.